

47. The method of claim 45, wherein said protein is prothrombin, Factor VII, Factor IX, Protein C, Protein S, Factor V, Factor VIII, α 1-antitrypsin, antithrombin III, fibrinogen, albumin, an immunoglobulin, a hormone, a growth factor, erythropoietin, a bone morphogenetic protein, an enzyme, and enzyme inhibitor or an ion channel protein.

48. The method of claim 47, wherein said hormone is a growth hormone.

49. The method of claim 47, wherein said growth factor is a transforming growth factor.

50. The method of claim 47, wherein said enzyme is a protease, a glycosyltransferase, a phosphorylase, a kinase, or a γ -carboxylase.

51. The method of claim 47, wherein said enzyme is obtained from exthermophilic or thermophilic organisms.

52. The method of claim 45, wherein said 5' expression regulatory sequences are obtained from a uromodulin gene, a renin gene, a erythropoietin gene, a uropontin gene, a nephrocalcin gene or a aquaporin gene.

53. The method of claim 45, wherein said kidney-specific promoter is a uromodulin promoter.

54. The method of claim 45, wherein said transgenic animal is a mammal.

55. The method of claim 45, wherein said transgenic animal is a pig, sheep, goat, cow, rodent, rabbit, horse, dog, cat, bird or reptile.

56. A non-human transgenic animal that produces in its urine a protein, wherein said transgenic animal has stably integrated into its genome an exogenous gene construct comprising 5' expression regulatory sequences, including a kidney-specific promoter operably linked to an exogenous gene encoding said protein that is detectable in the urine of said transgenic animal.

57. The animal of claim 56, wherein said protein is prothrombin, Factor VII, Factor IX, Protein C, Protein S, Factor V, Factor VIII, α 1-antitrypsin, antithrombin III, fibrinogen, albumin, an immunoglobulin, a hormones, a growth factor, erythropoietin, a bone morphogenetic protein, an enzyme, and enzyme inhibitor or an ion channel protein.

58. ~~The animal of claim 57, wherein said hormone is a growth hormone.~~

59. ~~The animal of claim 57, wherein said growth factor is a transforming growth factor.~~

60. ~~The animal of claim 57, wherein said enzyme is a protease, a glycosyltransferase, a phosphorylase, a kinase, or a γ -carboxylase.~~

61. The animal of claim 57, wherein said enzyme is obtained from exthermophilic or thermophilic organisms.

62. The animal of claim 56, wherein said 5' expression regulatory sequences are obtained from a uromodulin gene, a renin gene, a erythropoietin gene, a uropontin gene, a nephrocalcin gene or a aquaporin gene.

63. The animal of claim 56, wherein said kidney-specific promoter is a uromodulin promoter.

64. The method of claim 56, wherein said transgenic animal is a mammal.

65. The animal of claim 56, wherein said transgenic animal is a pig, sheep, goat, cow, rodent, rabbit, horse, dog, cat, bird or reptile.

66. ~~Urine~~ containing a recombinant protein produced by the animal of claim 56.—

Please cancel claims 2-4, 9,10, and 14, without prejudice or disclaimer.